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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,636	07/21/2003	Giovanni Manfre'	37886/GM/cb	4567

7590

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EXAMINER

PAIK, SANG YEOP

ART UNIT

PAPER NUMBER

3742

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/622,636

Applicant(s)

MANFRE' ET AL.

Examiner

Sang Y Paik

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-15 and 17-25 is/are rejected.
7) ☒ Claim(s) 16 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 16 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 16, which depends on claim 14, recites for the thickness of the reflective film in the range of 50-90 nm. However, such range cannot be supported or further limited when in claim 14, the thickness was defined within 37-48, i.e., the range 37-48 nm cannot be further defined into 50-90 nm.

2. Claim 18 is objected to because of the following informalities: there is a typo which shows the underlined "17" which should have been cross out. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 5-9, 12-15, 17, 18, 20 and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Shirn et al (US 3,686,473).

Shirn shows a heated mirror having a glass body with a reflective and single electrically conductive metal layer/film provided thereon and two conductive busbars made of silver on the

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metal layer. Shirn further shows that the metal film has the thickness of 300-400 Å which is equivalent to 30-40 nm and the application of 12V to power the metal film.

With respect to claims 12, 14, 17, 20, 23 and 25, the claimed ratio or the resistivity coefficient is inherently met by Shirn as being the inherent properties or functions of the structure having the same metal layer on the glass body with the same conductive busbars.

With respect to the recited process of vacuum arc deposition as well as other processes by which the reflective film and bus-bars are made, it is noted to the applicant that the product-by-process claims are limited by product itself, and the patentability does not depend on the method by which the product is made.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 10, 19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirn et al (US 3,686,473) in view of Sugiyama et al (EP 0 677 434).

Shirn shows the structure claimed except the glass body being curved.

Sugiyama shows a heated mirror with the glass body which is curved. Furthermore, Sugiyama shows that the reflective conductive metal/film can be made of nichrome or titanium based reflective film.

In view of Sugiyama, it would have been obvious to one of ordinary skill in the art to adapt Shirn with the curved glass body to form a desired shape and to meet various modifications

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where such mirror mirrors can be used. Furthermore, it would have been obvious to use the titanium based reflective film an alternative film to provide a more stable and secure heating performance.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shirn et al (US 3,686,473) in view of Merz et al (US 4,087,778).

Shirn shows the structure claimed except providing the conductive bars interposed between the conductive film and the glass body.

Merz shows a resistor element whose conductive bus bars (14) are interposed between the glass ceramic body (12) and the conductive film (20). In view of Merz et al, it would have been obvious to one of ordinary skill in the art to adapt Shirn with the bus bars interposed between the glass body and the conductive film as an alternative arrangement to protect the busbars as well as to provide a stronger bonding between the bus bars and the reflective heating element.

8. Claims 11 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirn et al (US 3,686,473) in view of Komatsu (US 5,594,585).

Shirn shows the structure claimed except the reflective film being made of pure titanium.

Komatsu shows a heated mirror with a reflective film (34) made of nichrome or titanium. In view of Komatsu, it would have been obvious to one of ordinary skill in the art to adapt Shirn with the reflective film made of titanium as an alternative material that is known in the art to provide a sufficient heating to heat a glass body.

Response to Arguments

9. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Y Paik whose telephone number is 571-272-4783. The examiner can normally be reached on M-F (9:00-4:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Y. Paik

Sang Y Paik
Primary Examiner
Art Unit 3742

syp